

Why isn't software a capital investment? (from a naïve point of view)

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Each year I have to report on the location of a now 10 year old workstation that originally cost \$35K. Of course, today that workstation is less powerful than my 3 year old \$500 home computer. But, it is a capital investment and if the property management department of my DOE lab can not account for it there is a serious problem. At the same time no one asks what happened to the several million dollar investment in software development manpower over the same 10 year period. And while the 10 year old workstation really is worthless now, much of the software is actually still valuable, and would cost as more to replace it now than it cost to build it.

Consider the world's richest people:¹

1. William Gates III (software)
2. Warren Buffett (retail)
3. Karl Albrecht (groceries)
4. Prince Alwaleed Bin Talal Alsaud (oil)
5. Paul Allen (software)
6. Alice Walton (retail)
7. Helen Walton (retail)
8. Jim Walton (retail)
9. John Walton (retail)
10. S Robson Walton (retail)
11. Liliane Bettencourt (cosmetics, food)
12. Larry Ellison (software)
13. Ingvar Kamprad (retail furniture)
14. Theo Albrecht (retail, groceries)
15. Kenneth Thomson & family (media & entertainment)
16. Mikhail Khodorkovsky (oil/gas/crook?)
17. Carlos Slim Helu (telecom monopoly)
18. Michael Dell (computer hardware)

Numbers 1, 5, 12 are software and the first hardware person is 18. The remaining of 2-17 are retail & consumables.

Microsoft has recently extended support for software for up to 10 years after it's release².
When I buy a new Dell computer I can purchase an extended warranty for up to 3 years.

When it comes to information technologies, IT, it is very clear that DOE (& the whole government presumably) has a misguided understanding of cost, value and worth. The mechanisms of government do not know how to account, track and support software

¹ www.forbes.com

² <http://support.microsoft.com/default.aspx?scid=fh%3Ben-us%3Blifecycle&LN=EN-US&x=18&y=8>

investments. If it were clear to OMB where a \$10M investment in software, with a 10+ year value lifetime, has been made then there would be a much greater interest in preserving that investment. With today's accounting procedures though that \$10M simply vanishes and there is no "thing" to put a property sticker and associated value upon. Even in those cases where there is a "fabrication project", which is a mechanism to spend capital equipment funds on software development, the property sticker must get attached to a piece of hardware somewhere or the "system" has a catatonic fit. Unless we can change these perceptions of cost, value and lifetime we will continue to struggle to find means to support valuable scientific software.